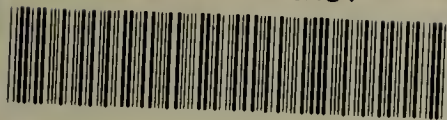


UMASS/AMHERST



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1980

*Massachusetts
Lobster Fishery
Statistics*

by

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INTRODUCTION

The commercial lobster fishery of Massachusetts is the most economically important fishery conducted within the territorial waters of the Commonwealth. The overall economic importance of the lobster fishery both in New England and, in recent years, in the Mid-Atlantic states, has focused the attention of Federal, Regional and State Fishery managers on this species. Initially, in an attempt to standardize management of the fishery, the Federal and State governments developed an overall lobster fishery management plan under the auspices of the State-Federal Partnership Program. However, with the passage of the Fisheries Management and Conservation Act, the New England Fisheries Management Council in cooperation with the Mid-Atlantic Council has begun to develop a management plan for the entire east coast lobster fishery. The basis of any such plan is an accurate statistical data base. The Commonwealth of Massachusetts, with joint funding from the National Marine Fisheries Service, has been collecting annual catch reports from licensed lobster fishermen for many years. Historically, the data collected has been used primarily for descriptive and informational purposes, and occasionally for management. However, with the recent emphasis on Federal and regional management, this data takes on added importance in terms of providing the respective management agencies with adequate information to ensure that the interests of Massachusetts lobstermen are protected.

In 1980, the number of coastal commercial lobster licenses issued by the Division was limited by law to 1,300. There was a provision for the issuance of an additional 130 permits to fishermen who could demonstrate to the Marine Fisheries Advisory Commission that they would suffer significant economic hardship if they did not obtain a commercial lobster permit. The limitation on the number of licenses issued remained in effect until January 1, 1981, when 100 new licenses became available. Each subsequent year 80 new licenses will be issued, while licenses not renewed will be retired.

This report is the fourteenth annual publication of data summarized from catch reports submitted by licensed lobster fishermen. For the most part, these reports have been presented in a standardized format. However, major changes in data collection, and a more thorough evaluation of data have brought about a substantial change in data presentation. The specific reasons for these changes are explained more thoroughly elsewhere in the text. It is anticipated that these changes will be ongoing and that a finalized format may not be developed for several years.

The report has been prepared by personnel from the Division of Marine Fisheries' Commercial Fisheries Statistics Project and Economics Project funded jointly by the Commonwealth, the National Marine Fisheries Service under the Commercial Fisheries Research and Development Act (Public Law 88-309) and a grant from the Massachusetts Office of Coastal Zone Management.

The preparation of this report would not have been possible without cooperation of the licensed lobstermen of the Commonwealth who provided the data on their annual catch reports. Special thanks also go to Nancy Leamy and Mary Ann Gachignard for their assistance in processing the catch reports when they are received from the fishermen and to Irene Kushlan and Doris Jimenez who assisted in the compilation of catch-effort data.

SOURCE OF DATA

No person may fish for or take lobsters in coastal waters or land lobsters in the Commonwealth without a permit issued by the Director of the Division of Marine Fisheries (Chapter 130, Mass. G. L., Section 38). Chapter 130, Mass. G. L., Section 33, requires any person so licensed to file an annual report of their catch by January 31 for the preceding calendar year. Until 1980, license renewal applications and separate catch report forms were mailed to both commercial and non-commercial licensees at the end of the calendar year. In 1980, after a thorough review of the reporting system, it was decided that because of the volume of licenses issued to non-commercial fishermen was so great (exceeding 80% of the total licenses issued) and the percent of the total lobsters landed by this group has been historically low (@ 5%), a separate, detailed, catch report was extremely inefficient and cost ineffective to process. Therefore, a small block on each renewal license was provided for the non-commercial lobstermen to report the number of lobsters taken during 1980. License renewals were not processed unless this block was filled in. Persons not wishing to renew their license were reminded of the legal obligation to report their catch and instructed to return their application form with their 1980 catch filled in and instructions not to renew their permit. Unfortunately, due to turnover in clerical personnel on the licensing staff, an undetermined number of applications returned with the instructions not to renew the permit were destroyed. In addition, it was anticipated that the catch would be entered into the computer along with the license information and automatically totaled. Due to administrative problems, changes in the computer program were not made to accomodate this process and the remaining non-commercial catch was again processed by hand. It is hoped that these problems will be cleared up by the 1982 licensing year and the processing of the non-commercial catch for 1981 will more accurately reflect the actual non-commercial landings.

Coastal commercial, seasonal and offshore lobster license holders are required to file a more detailed report which includes the following information: method of fishing; number and type of gear used; effort data (number of traps fished, set-over days, etc.); pounds of lobster taken; areas fished; principle port(s) of landing; and information relative to the vessels used in the fishery. Project personnel sort, edit, tabulate and interpret data from all reports.

Although holders of offshore commercial lobster permits are required to file an annual report, historically no attempt has been made to present data other than total catch. This year, summary statistics, including number of pots fished, lobsters caught by otter trawl and value of vessels engaged in the offshore fishery are included in this report.

Data presented in this booklet are based on catch reports actually received and are not expanded to 100 percent levels.

EXPLANATION OF TABLES

In past years, all data pertaining to the Massachusetts "coastal" lobster fishery was obtained by requesting the fishermen to state on his report the estimated number of pounds of lobsters harvested in territorial waters. Although the same estimate was requested again in 1980, a thorough review of the data collection process indicated that, due to the irregularity of the Massachusetts coastline, the lack of sophisticated electronic navigational equipment on smaller inshore lobster boats and general lack of knowledge as to exactly where the territorial boundaries are, it was decided to break down all landing data into two basic categories: the first will contain all data on lobsters harvested inside 69° West longitude and 41° North latitude; and the second group will relate to lobsters taken outside this area. For the sake of data continuity the estimated total lobster catch harvested in the territorial waters is still presented, but is not used as the basis of data expansion as it had been in the past.

Tables presenting number of fishermen by license type, number of pots fished, number and value of boats used in the fishery and total landings state-side, by county and for each coastal city and town were prepared using the catch reports submitted by all fishermen. In keeping with the Division policy, some of the data presented is masked or combined to protect the confidentiality of the individual submitting the report. Data referring to number of fishermen, number and value of gear, and number and value of boats are presented by the homeport of the licensee filing the report. Pounds of lobsters harvested are presented by the port of landing reported by the fishermen.

Due to limited data storage capability of the programmable calculator used to calculate percent of catch by area and month fished, and catch per unit of effort statistics, only those reports submitted by holders of commercial coastal licenses could be tabulated. Of all reports filed by fishermen, only 867 reports could be used, due to missing or improper data supplied by the fishermen.

Where tabular material refers to county, the reader is referred to Figure 1. Fishing areas are delineated in Figure 2.

Vessel and SCUBA gear values were calculated on the basis of the fisherman's estimate of its present value and the percentage of its use specifically for lobstering. Average values were used when the information was omitted from an individual report.

When fishermen reported the number of lobsters taken, rather than poundage, a conversion factor of 1.2 pounds per lobster was used to calculate poundage figures. This factor is based on historical data.

1980 Highlights

- 1) There were 14,763 lobster licenses of all types issued during 1980: 1,438 coastal commercial; 370 seasonal commercial; 573 offshore; and 12,382 non-commercial.

- 2) A total of 4,723 licensed lobster fishermen (32 percent) failed to file a catch report with the Division. Of the 10,040 fishermen reporting, 2,933 (29.2 percent) reported that they did not fish for lobster during 1980.
- 3) A total of 10,257,083 pounds of lobsters were reported landed. Of these, recreational fishermen reported taking 352,884 pounds, while the commercial fishermen reported taking 9,904,199 pounds. Based on an average value of \$2.14 per pound,¹ the commercial catch was valued at \$21,194,985.
- 4) Commercial fishermen comprised 21 percent of the total number of fishermen reporting and landed 96 percent of the total reported catch.
- 5) Non-commercial SCUBA divers represented 24 percent of the fishermen reporting, but landed only 1 percent of the total poundage landed.
- 6) In total pounds of lobsters landed, Essex County ranked first, Plymouth County second and Suffolk County third.
- 7) In total numbers of commercial fishermen reporting, Essex County ranked first with 632, Plymouth County second with 404 and Barnstable County third with 168.
- 8) In the commercial fishery, pots were valued at \$8,509,590² diving gear at \$25,429 and power and non-power boats at \$19,452,493, yielding a total gear value of \$27,987,512. Combined with the value of lobsters sold, \$21,194,985, this gives a total commercial fishery value of \$49,182,497.
- 10) Of the 9,904,199 pounds of lobsters landed, 8,323,959 were reported taken inside of 69° W and 41° N and of that number, 7,749,432 were estimated by the fishermen to have been taken within the territorial waters of the Commonwealth.
- 11) More lobsters were landed in Boston, 1,111,149 pounds, than in any other Massachusetts port. Gloucester ranked second with 742,024 pounds, followed closely by Plymouth with 737,468 pounds.
- 12) Landings by coastal commercial fishermen rose steadily in the spring, peaked in August and then declined. The least amount of lobsters were landed in February and March.
- 13) According to coastal fishermen the greatest numbers of lobsters taken inside of 69° W and 41° N were from Boston Harbor (Area 4), followed by Cape Ann (Area 2) and the Beverly-Salem-Marblehead Area (Area 3).
- 14) The average catch per trap per set-over-day for coastal fishermen was 0.533 pounds. For traps fished for one set-over-day the average was 0.402; for those fished two days, 0.529; and for three set-over-days, 0.616 pounds. For detailed information the reader is referred to Tables 1 through 13.

¹Ex-vessel price determined from the Massachusetts Dealer Transaction Program

²Based on an average price of \$30 per pot, including warp and buoys

Table 1
Reporting Status of 1980 Lobster Licensees.

Licenses Issued	
Coastal Commercial (\$100)	1,438
Seasonal Commercial (\$25)	370
Offshore (\$100)	573
Non-Commercial (\$15)	<u>12,382</u>
Total	14,763

Reporting Status			
Type	Not Reporting	Reporting "Not Fishing"	Reporting "Fishing"
Coastal Commercial	45 (3%)	156	1,237
Seasonal Commercial	171 (46%)	25	174
Offshore	151 (26%)	298	124
Non-Commercial	4,356 (35%)	2,454	5,572

1940 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

STATEWIDE TOTALS

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver	4	6,748				13,050	14,164
	Potman	1,219		1,207		6	1,096	8,027,978
	Boat	16	18,681	17				86,547
SEASONAL	Potman	169		161		2	400	50,822
OFFSHORE	Trawl	65		67				111,838
	Potman	27		28				32,610
TOTAL		1,500	25,429	1,484		8	1,496	8,323,959
Taken Outside 69°W 41°N								
OFFSHORE	Trawl	18		18			206,800	224,777
	Potman	10		10			1,165,000	784,132
COASTAL	Potman							571,331
TOTAL		28		28			1,371,800	1,580,240
GRAND TOTAL		1,528		1,522		8	1,496	9,904,199

1 Gear and vessel information included above

TABLE 3

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

BARNSTABLE COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver	4	6,748		4		13,050	14,164
	Potman	129			123		1,436,460	550,770
	Both	7	14,823		7		58,750	36,488
SEASONAL	Potman	11			9		11,135	2,944
OFFSHORE	Trawl	12			12		19,225	5,975
	Potman							
TOTAL		163	21,571		155		1,508,260	610,341

Taken Outside 69°W 41°N

OFFSHORE	Trawl ¹							174,873
	Potman	5			5		403,400	446,881
COASTAL	Potman ²							364,682
TOTAL		5			5		403,400	986,436
GRAND TOTAL		168	21,571		160		1,911,660	1,596,777

TABLE 4

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

BRISTOL COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL ¹	Diver							
	Potman	67	16,145	64	1,663,730			325,307
	Both							
SEASONAL	Potman	7	145	7	4,390			1,531
	Trawl	3		3	40,500			400
OFFSHORE	Potman ¹							719
TOTAL		77	16,290	74	1,708,620			327,957
Taken Outside 69°W 41°N								
OFFSHORE	Trawl	8		8	94,300			14,700
	Potman	5	3,775	5	761,600			207,520
COASTAL	Potman ²							204,403
TOTAL		13	3,775	13	855,900			426,623
GRAND TOTAL		90	20,065	87	2,564,320			754,580

¹Data masked to protect confidentiality

²Gear and vessel information included above

TABLE 5

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

DUKES COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman	22	3,023	22	323,750			69,251
	Both							
	Potman ¹							460
SEASONAL	Trawl							
OFFSHORE	Potman							
TOTAL		22	3,023	22	323,750			69,711
Taken Outside 69°W 41°N								
OFFSHORE	Trawl ¹							4,500
	Potman							
COASTAL	Potman							
TOTAL								4,500
GRAND TOTAL		22	3,023	22	323,750			74,211

¹Data masked to protect confidentiality

TABLE 6

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

ESSEX COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman	513	112,333	512	6,618,995	2	296	3,399,653
	Both	5	640	6	60,645			40,299
SEASONAL	Potman	57	1,174	55	81,108			16,216
OFFSHORE	Trawl	35		37	416,100			82,559
	Potman	12	1,300	13	81,850			18,030
TOTAL		622	115,447	623	7,258,698	2	296	3,556,757
Taken Outside 69°W 41°N								
OFFSHORE	Trawl	10		10	112,500			30,704
	Potman							
COASTAL	Potman							1,600
TOTAL		10		10	112,500			32,304
GRAND TOTAL		632	115,447	633	7,371,198	2	296	3,589,061

1. Gear and vessel information included above

TABLE 7

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

NANTUCKET COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman 5		596	5	56,325			15,162
	Both							
	Potman							
	Trawl							
	Potman ¹							1,448
TOTAL	5		596	5	56,325			16,610
Taken Outside 69°W 41°N								
OFFSHORE	Trawl							
	Potman ¹							3,200
COASTAL	Potman ²							646
TOTAL								3,846
GRAND TOTAL	5		596	5	56,325			20,456

¹Data masked to protect confidentiality

²Gear and vessel information included above

TABLE 8

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

NORFOLK COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman	72	15,258	72	1,161,190			555,810
	Both							
SEASONAL	Potman	10	213	10	10,387			3,610
OFFSHORE	Trawl							
	Potman							
TOTAL		82	15,471	82	1,171,577			559,420
Taken Outside 69°W 41°N								
OFFSHORE	Trawl							
	Potman							
COASTAL	Potman			NONE				
TOTAL								
GRAND TOTAL		82	15,471	82	1,171,577			559,420

Diver and Potman combined to protect confidentiality

TABLE 9

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

PLYMOUTH COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman	298	59,801	298	3,731,430	1	200	1,939,108
	Both ¹	4	604	4	28,500			9,760
SEASONAL	Potman	75	1,527	71	164,009	1	200	24,116
OFFSHORE	Trawl	15		15	254,750			22,904
	Potman	12	1,215	12	80,950			9,342
TOTAL		404	63,174	400	4,259,639	2	400	2,005,230
Taken Outside 69°W 41°N								
OFFSHORE	Trawl							
	Potman ²							20,449
COASTAL	Potman							
TOTAL								20,449
GRAND TOTAL		404	63,174	400	4,259,639	2	400	2,025,679

¹Diver and Both combined to protect confidentiality²Gear and vessel information included above

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

SUFFOLK COUNTY

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman	109	35,980	108	1,682,320			1,161,876
	Both							
SEASONAL	Potman	9	164	9	14,358			1,945
OFFSHORE	Trawl							
	Potman	3	298	3	55,000			3,071
TOTAL		121	36,442	120	1,751,678			1,166,892

Taken Outside 69°W 41°N								
OFFSHORE	Trawl							
	Potman							58,342
COASTAL	Potman							
TOTAL								58,342
GRAND TOTAL		121	36,442	120	1,751,678			1,225,234

Trawl and Potman combined to protect confidentiality

TABLE 11

1980 MASSACHUSETTS LOBSTER FISHERY
SUMMARY STATISTICS--COMMERCIAL

OUT OF STATE

LICENSE TYPE	GEAR TYPE AND NUMBER	DIVING GEAR VALUE	POTS FISHED	POWER BOAT	BOAT VALUE	NON- POWER BOAT	BOAT VALUE	POUNDS OF LOBSTER
Taken Inside 69°W 41°N								
COASTAL	Diver							
	Potman ¹ 4		245	3	10,290			11,041
	Both							
SEASONAL	Potman							
OFFSHORE	Trawl							
	Potman							
TOTAL	4		245	3	10,290			11,041
Taken Outside 69°W 41°N								
OFFSHORE	Trawl							
	Potman ²							47,740
COASTAL	Potman							
TOTAL								47,740
GRAND TOTAL	4		245	3	10,290			58,781

¹ Seasonal and Coastal combined to protect confidentiality

Table 13. Massachusetts Commercial Lobster Landings Inside 69°W and 41°N
by Month and Area as Reported by Coastal Commercial Fishermen in 1980.*

<u>Month</u>	<u>Percent</u>	<u>Area</u>	<u>Percent</u>
January	0.9	1	1.9
February	0.2	2	15.5
March	0.2	3	14.7
April	1.6	4	27.8
May	5.5	5	13.9
June	7.1	6	10.1
July	18.6	7	1.5
August	22.7	8	5.0
September	18.4	9	0.5
October	14.8	10	4.7
November	7.0	11	3.3
December	<u>3.0</u>	12	<u>1.1</u>
	100.0		100.0

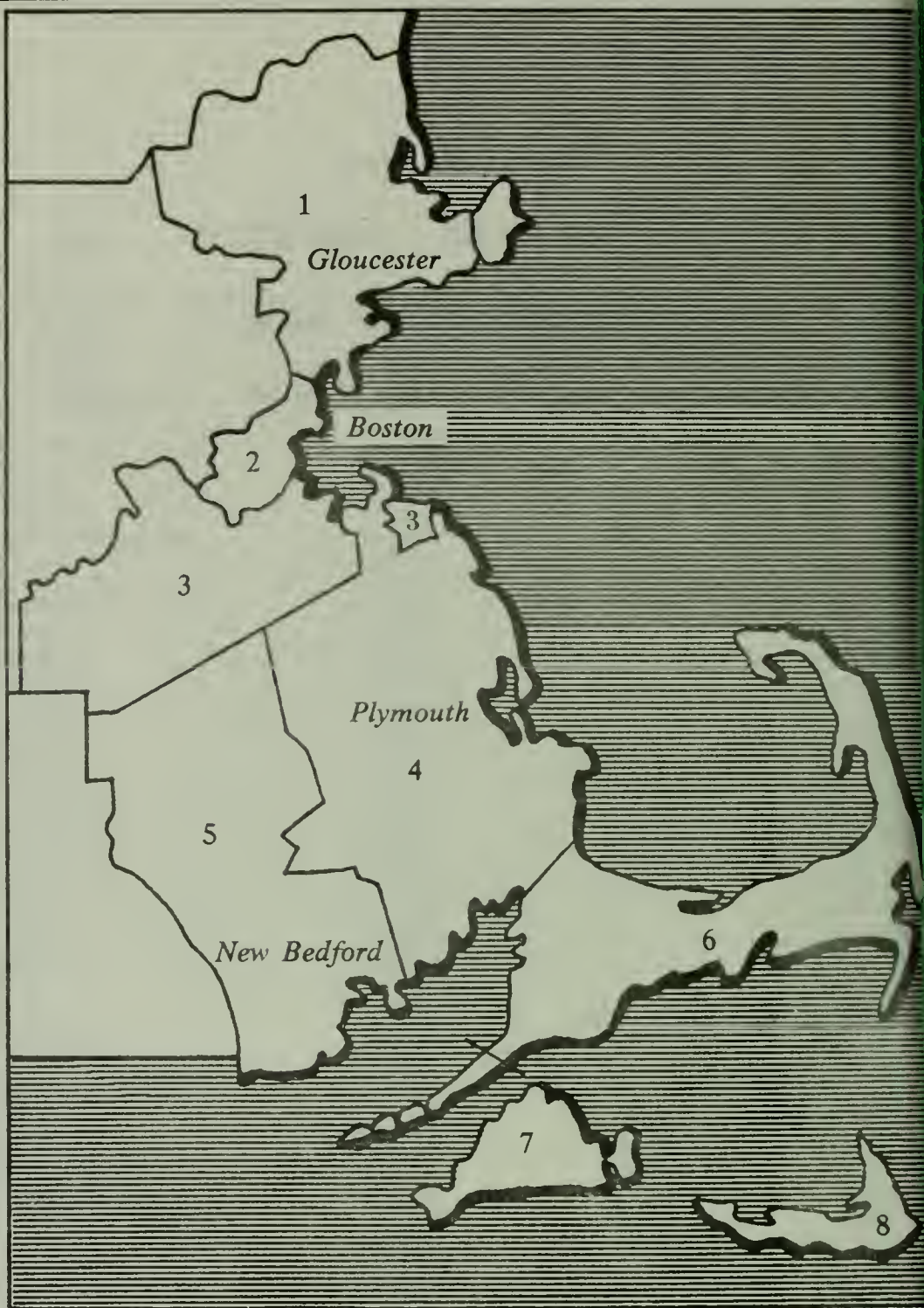
*Based on 867 reports

Table 13. Pounds of Lobster Landed by Commercial Fishermen
by City or Town of Landing in 1980.

<u>City/Town</u>	<u>Inside 69°W 41°N</u>	<u>Outside 69°W 41°N</u>	<u>Total</u>
Barnstable	24,750	355,796	380,546
Beverly	527,975		527,975
Boston	1,052,807	58,342	1,111,149
Bourne	50,357	330	50,687
Braintree-Quincy	14,957		14,957
Chatham	142,797	44	142,841
Chelsea-Revere	8,880		8,880
Chilmark	62,887		62,887
Cohasset	460,990		460,990
Danvers	20,650		20,650
Dartmouth	11,020		11,020
Dennis	31,281		31,281
Duxbury	25,701		25,701
Eastham	20,867		20,867
Essex	23,380		23,380
Fairhaven	83,223		83,223
Falmouth	19,144		19,144
Gloucester	711,320	30,704	742,024
Gosnold	4,126		4,126
Harwich	33,969	295,122	329,091
Hingham	105,144		105,144
Hull	181,320		181,320
Ipswich	80,614		80,614
Kingston	25,744		25,744
Lynn	30,920		30,920
Manchester	183,616		183,616
Marblehead	509,118		509,118
Marion-Mattapoisett	38,896		38,896
Marshfield	533,585		533,585
Nahant	221,258	1,600	222,858
Nantucket	16,610	3,846	20,456
New Bedford	104,339	26,897	131,236
Newbury-Newburyport	33,524		33,524
Oak Bluffs-Tisbury	2,698	4,500	7,198
Orleans	38,676		38,676
Plymouth	717,019	20,449	737,468
Provincetown	121,213	8,500	129,713
Rockport	417,702		417,702
Salem	56,938		56,938
Salisbury	7,501		7,501
Sandwich	123,410	326,644	450,054
Saugus	447,983		447,983
Scituate	343,605		343,605
Swampscott	284,258		284,258
Truro	1,892		1,892

Table 13. (Continued)

<u>City/Town</u>	<u>Inside 69°W 41°N</u>	<u>Outside 69°W 41°N</u>	<u>Total</u>
Wareham	34,216		34,216
Wellfleet	1,985		1,985
Westport	129,375	399,726	529,101
Weymouth	83,473		83,473
Winthrop	105,205		105,205
Out-of-State	11,041	47,740	58,781



COASTAL MAP of MASSACHUSETTS
SHOWING STATISTICAL REPORTING AREAS (Counties)

- | | | | |
|------------|-------------|---------------|--------------|
| 1. Essex | 3. Norfolk | 5. Bristol | 7. Dukes |
| 2. Suffolk | 4. Plymouth | 6. Barnstable | 8. Nantucket |

Figure 1

Figure 2. Location and description of coastal lobster fishing areas in Massachusetts.

